AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) A multi-foil optic comprising:

a piuraiity of flat plates each having a reflecting surface, and positioned normal to an arc to provide total external reflection to high energy radiation incident on the plates from a high energy radiation source, to focus the incident high energy radiation on a designated surface, wherein each plate has a thickness in the range of 50-70 μm.

2. (Original) The multi-foil optic of claim 1, wherein the high energy radiation comprises X-ray radiation.

3. (Original) The multi-foil optic of claim 1, wherein the high energy radiation comprises extreme ultraviolet (EUV) radiation.

4. (Original) The multi-foil optic of claim 1, wherein the plates are made of glass.

5. (Original) The multi-foil optic of claim 1, wherein the plates are made of mica.

6. (Currently Amended) A method for performing high energy radiation lithography, comprising the steps of:

receiving high energy radiation from a high energy radiation source;

focusing the high energy radiation from the high energy radiation source using a multi-foil optic, the multi-foil optic comprising a plurality of flat plates each having a reflecting surface, and positioned normal to an arc to provide total external reflection to high energy radiation incident on the plates from a high energy radiation source, to focus the incident high energy radiation on a designated surface, wherein each plate has a thickness in the range of 50-70 μm; and

receiving the focused high energy radiation from the multi-foil optic onto a lithographic specimen via a lithographic mask.

7. (Original) The method of claim 6, wherein the high energy radiation comprises X-ray radiation.

8. (Original) The method of claim 6, wherein the high energy radiation comprises extreme ultraviolet (EUV) radiation.

9. (Currently Amended) A high energy lithographic system, comprising:

a high energy source;

a multi-foil optic for focusing high energy radiation from the high energy source, the multi-foil optic comprising a plurality of flat plates each having a reflecting surface, and positioned normal to an arc to provide total external reflection to high energy radiation incident on the plates from a high energy radiation source, to focus

the incident high energy radiation on a designated surface, wherein each plate has a thickness in the range of 50-70 μm; and

a mask, which receives focused high energy radiation from the multi-foil optic and selectively blocks some of the radiation to form a pattern on a specimen that is exposed to high energy radiation passing through said mask.

10. (Original) The high energy lithographic system of claim 9, wherein the high energy radiation comprises X-ray radiation.

11. (Original) The high energy lithographic system of claim 9, wherein the high energy radiation comprises extreme ultraviolet (EUV) radiation.

12. (New) The multi-foil optic of claim 1, further comprising a coating on each of the flat plates.

13 (New) The multi-foil optic of claim 1, further comprising a multilayer coating on each of the flat plates.

14. (New) The multi-foil optic of claim 1, wherein the multi-foil optic has a size within a volume of about 5 mm^3.

15. (New) The method of claim 6, wherein the multi-foil optic comprises a coating on each of the flat plates.

16 (New) The method of claim 6, wherein the multi-foil optic comprises a multilayer coating on each of the flat plates.

17. (New) The method of claim 6, wherein the multi-foil optic has a size within a volume of about 5 mm^3.

18. (New) The high energy lithographic system of claim 9, wherein the multi-foil optic comprises a coating on each of the flat plates.

19 (New) The high energy lithographic system of claim 9, wherein the multi-foil optic comprises a multilayer coating on each of the flat plates.

20. (New) The high energy lithographic system of claim 9, wherein the multi-foil optic has a size within a volume of about 5 mm^3.